Post-2006: Getting the Demand Side of the Equation Right

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The Problems

- Wholesale markets:
 - Short term and volatile
 - Not free of market power problems
 - Have not demonstrated ability to develop new power when and where needed at an acceptable cost (Resource Adequacy)
- Most retail customers do not choose.
- Economic value has been lost from failure to efficiently integrate the electric system (G,T&D), using all supply and demand resources

The Retail Paradigm

- Electricity suppliers hold diverse portfolios composed of:
 - Many different power plants
 - Many different contractual arrangements at differing costs
 - Diverse fuel risks
- ➤ In a fully competitive market, competitive pressure causes the benefits of the suppliers' portfolio of resources be flowed through to customers



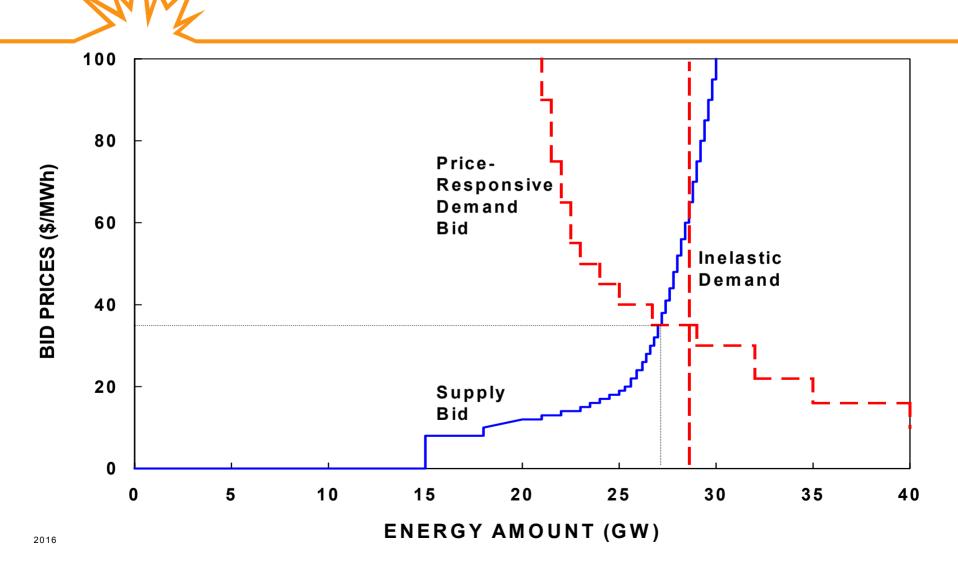
The Retail Reality – For the Time Being

- No competitive pressure to pass portfolio benefits to retail customers.
- Few or no Retail Suppliers.
- >75-95% customers on Standard Offer Service.
- Policy makers: Desire to offer stably priced service but also to let markets develop.

The ICC's Challenge

- The ICC by virtue of its design of Standard Offer Service will be (for better or for worse) the surrogate for competition.
- Shaping *demand* drives the shape of the *supply* offered.

Markets Are the Meeting of Supply and Demand



Using the Power of Demand to improve Markets

- The design of Standard Offer Service will have a profound effect on the how the Wholesale Markets work:
 - Can induce a broad variety of products
 - -Can mitigate market power
 - Can reduce price volatility

Designing the SOS

- Improve use of emerging wholesale markets through competitive bidding for a variety of products
- Assign the duty to acquire and manage a longer term, diverse resource portfolio to a reliable, bankable entity:
 - distribution company
 - independent entity
 - state agency
 - bid out franchise or slices of franchise

Standard Offer Service

- Should be an actively managed portfolio of resources
- ➤ Managed to minimize and balance risks
- > Short, medium and long term commitments
- > Supply and demand side resources
- Physical and financial hedges

Regulation Deals with Risks

- > Familiar old risks
 - Fuel cost increase
 - Capital cost increase
 - Economic conditions/ demand for product
 - System reliability
 - Environmental costs
 - Abnormal weather events
 - Adequate capacity

New Risks

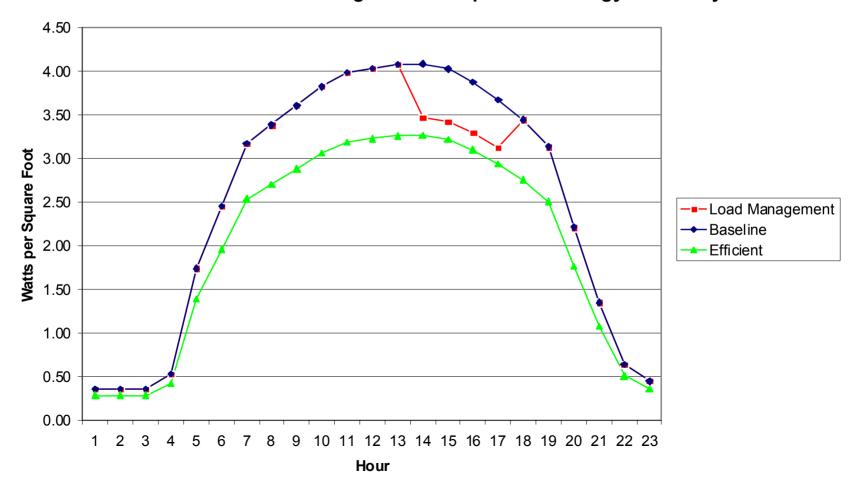
- > New Risks in Competitive Markets
 - Market price volatility
 - Market manipulation
 - Resource Adequacy
- ➤ Default Service Risk
 - Having all load subject to same/ or nearly same contract period
- > System Security/Terrorism

Retail Portfolio Diversification

- > Don't want all the eggs in one basket
- **Diversify**
 - By length of commitment
 - By amount of load subject to any single arrangement
 - By resource type
 - By use of Financial as well as Physical assets
 - -ICC needs to know what is in the basket!

Long-term Efficiency Also Shapes Demand

Combined Commercial Cooling and Lighting Loadshape
Baseline and Load Management Compared to Energy Efficiency





A Few Words About Natural Gas

- The price for natural gas is high and will be high for some time to come.
- Natural gas customers compete with electric generators for the use of natural gas.
- Environmental characteristics of natural gas are favorable.
- Efficiency on both the gas and electric side can do a lot to conserve gas and keep prices down.
 - ACEEE: Readily available EE measures can bring gas prices down 20% within 2 years.
 - NPC: Need EE and renewable resources in short run